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L2: Entry 21 of 68

File: USPT

Mar 14, 2000

DOCUMENT-IDENTIFIER: US 6037939 A

TITLE: Method for enabling interactive manipulation of data retained in computer system, and a computer system for implementing the method

BSPR:

A conventional device is known which allows a user to first designate a region to be magnified and then open a new window which includes the designated region, but this system still requires the user to select various menu items in order to open the new window, thereby increasing the operation complexity. Specifically, the user is required to use a mouse or the like to move an arrow in a display region 405a (FIG. 23) to a menu region (which is often located above the display region 405a) and locate the arrow A on a desired portion of a menu to select an item or icon, for example. This procedure requires the eyes of the user to temporarily avert from the displayed content, resulting in an interruption in the user's thought. Such an interruption in thought prevents smooth flow thereof because it requires the user's attention to be directed back and forth between different regions on the display.

DEPR:

The mouse 406b is used for designating a region in a window region. Specifically, when a user wishes to open a new window on the display region 405a, the user uses the mouse 406b to designate a beginning point and an ending point of the new window to be opened. The CPU 401 generates the new window based on the position designation data (including the designated beginning point and ending point). The CPU 401 then writes the display content after being thus processed into the frame buffer 71. The display region 405a displays the display content retained in the frame buffer 71. Thus, the user is able to open a new window by designating a beginning point and an ending point in the display region 405a.

DEPR:

As will be appreciated, the multi-window display device in FIG. 18 does not require a user who wishes to open a new window out of any region in the display region 405a and magnify or reduce the new window by a certain magnification ratio to perform all of: select a "New window" icon or item from a menu to generate a new window; select an "Open" icon or item from a menu to open the new window; select a "Move display region" icon or item from a menu to move the new window; and select a "Magnification/Reduction" icon or item from a menu to magnify or reduce the new window.

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L2: Entry 62 of 68

File: USPT

Sep 28, 1993

DOCUMENT-IDENTIFIER: US 5249296 A

TITLE: Information processing apparatus for controlling window positions

BSPR:

In operation, the inventive information processing apparatus for controlling window positions opens a new window in one of two ways. When an icon is checked with the pointing pen attached to the apparatus, the apparatus opens a new window in a predetermined position (e.g., the position where the old window was previously being opened). When an icon is dragged with the pointing pen, the apparatus opens a new window in the position to which the icon is dragged and from which the pointing pen is lifted up.

DEPR:

Suppose that the coordinates detected in the pen-up position are generated by a checking operation. In that case, the pen-down position is located in the same icon area as the pen-down position. Thus step 101 yields the affirmative decision, i.e., the decision that the coordinates of the pen-up position are within the icon area. The affirmative decision in step 101 is followed by step 102. In step 102, the X and Y coordinate values of the position in which to open the new window are set respectively to the X and Y coordinate values in effect immediately before the old window was closed (function of first display control means).

DEPR:

When the coordinates of the pen-up position are detected following a dragging operation, the pen-up position is located outside the icon area. In that case, step 101 finds that the coordinates of the pen-up position are not included in the icon area. The negative decision of step 101 is followed by step 103. In step 103, the X and Y coordinate values of the position in which to open the new window are set respectively to the X and Y coordinate values of the pen-up position (function of second display control means).

DEPR:

Then in the same manner as with the checking operation, step 104 opens the new window in the position defined by the X and Y coordinate values. The dragging operation opens a window in the position where the pointing pen is lifted up. That is, a window may be opened anywhere on the screen.

DEPR:

As described, a dragging operation (i.e., pointing pen movement) causes the contour K drawn in step 117 to move over the screen "dragged" by the pen, as shown in FIGS. 8 and 9. The contour drawn at this point indicates the position in which to open a new window. If the pointing pen is not moved far enough to go out of the icon area, the contour K is displayed in small size (the same in size as the "CHARACTERS" icon), as illustrated in FIG. 8. If the pointing pen is moved out of the icon area, the contour K is displayed in large size (the same in size as the character plate W), as depicted in FIG. 9.

CLPR:

3. An information processing apparatus for controlling window positions according to claim 1, further comprising storage means for storing the coordinate data defining the position in which to open at least a previously opened window, wherein said checking operation opens a new window according to said coordinate data stored in said storage means, said new window being displayed in the position in which the previous window was opened.